

APPARATUS AND METHOD TO COORDINATE CALENDAR SEARCHES IN A NETWORK SCHEDULER GIVEN LIMITED RESOURCES

ABSTRACT

A system that indicates which frame should next be removed by a scheduler from
5 flow queues within a network device, such as a router, network processor, and like
devices is disclosed. The system includes a search engine that searches a set of
calendars under the control of a Finite State Machine (FSM), a current pointer, and input
signals from an array and a clock line providing current time. Also included is a
decision block that determines which of the searches are critical and which, during peak
10 calendar search periods, can be postponed with minimal impact to the system. The
postponed searches are then conducted at a time when there is available calendar
search capacity.